



Position Title: Senior Electrical Engineer

Immediate Supervisor Title: Vice President, Global Product Development

Department: Engineering

Location: New Kensington, PA

FLSA Status: Salaried Exempt

Brief Summary of Position Purpose:

The Senior Electrical Engineer supports New Product Development projects as an Electrical / Embedded Design team member or lead, and has lead electrical engineering responsibility for Sustaining Engineering initiatives at Bacharach. The ideal candidate would have a history of innovative, cost effective, modular designs and strong New Product Development project management / leadership experience. This role also includes participating in VOC research, writing Electrical Requirement Specifications, designing analog and digital circuits, completing embedded firmware code, drafting design documentation, conducting design reviews, overseeing verification testing, supporting manufacturing launch activities and managing small technical projects. Moreover, the role works with Quality, Manufacturing and Supply Chain representatives to identify legacy product support needs and cost reduction opportunities and leads the technical assessment, verification and design change process.

The Senior Electrical Engineer also participates in department continuous improvement initiatives and research projects and is responsible to ensure compliance to Bacharach's New Product Development and Engineering Change processes.

Essential Functions:

- Lead the technical requirement definition, design architecture, detailed design, verification and design documentation for electrical and/or firmware aspects of assigned projects.
- Lead the assessment, qualification and design change process on identified Sustaining Engineering initiatives.
- Plan, prioritize and complete engineering investigations and design changes on existing products.
- Identify, document and pursue new intellectual property.
- Ensure all technical documentation is generated and reviewed in accordance with Bacharach's Engineering and Development processes.
- Lead assigned design planning and scheduling activities in cooperation with the NPD Project Manager.
- Coordinate with Manufacturing for DfX and Test Fixture Development.
- Participate in design review / code reviews.
- Other duties as assigned.

Education/Training/Certifications:

- BS in Electrical Engineering or Computer Engineering



Experience:

- Minimum 5 years of Electrical Engineering experience in product development teams.
- Formal Project Management training or demonstrated experience managing electrical or embedded development projects.
- At least one project cycle working with multinational development teams and/or 3rd party teams.
- Demonstrated customer-centric approach to assignments.
- Knowledge of National Electric Code
- Direct, hands-on product design experience in the following areas is strongly preferred:
 - Embedded systems design for industrial and / or safety critical applications.
 - C/C++ for embedded applications.
 - MSP430, Arm Cortex, Rabbit and PIC microcontrollers.
 - Gas sensing technologies and/or industrial controls.
 - Hardware designs including BLE, IoT, touchscreen, GUI, NFC, Mobile Apps
 - Industrial / Commercial EMC requirements (EN 50270:2015).
 - Functional safety standards (i.e. EN50271, IEC61508, EN50402, etc.)
- Industry knowledge in HVAC-R, Emissions Analysis and/or Industrial Gas Detection preferred.
- Experience working on multiple concurrent projects preferred.

Required Skill Sets: (e.g., computer skills, communications, math, etc.)

- Proficiency with PCB design software (Altium preferred); mechanical CAD (SolidWorks) a plus
- Experience with circuit simulation software (Spice)
- Experience with Product Lifecycle Management applications (Aras Innovator preferred)
- Experience in agile software and hardware development methodologies, continuous integration and deployment
- Strong interpersonal and communication skills, both verbal and written
- Ability to work independently as well as within in a team.
- Strong planning and organization skills
- Competency with MSOffice tools including Project, Outlook, Word, Excel and PowerPoint
- Ability to communicate both internally and externally on technical and non-technical matters.

Physical Demands: (e.g., lifting, travel, etc.)

- Position requires concentration, accuracy, and focused mental effort
- Works in normal office environment
- May travel domestically and internationally as business needs require with occasional exposure to plant heat, noise, dust, dirt and fumes

Pursuant to the Americans with Disabilities Act (ADA), reasonable accommodations may be made to enable qualified individuals to perform the essential functions of this job.

AA/EEO/M/F/D/V